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ABSTRACT

The California Manpower Management Information System (CMMIS) Project reported here was done to provide a means of coordinating manpower supply and demand information with pertinent demographic information which will enable state, regional, and local agencies to fulfill various legislative mandates and legal responsibilities. This report covers the products and services completed during project year 1975-1976 and made available to state, regional, and local practitioners. The following thirteen CMMIS products and services are each briefly described as to their content and purpose, development, and dissemination: Guide for Understanding CMMIS; Socio-Economic Factors Reports: Fresno and San Diego; Public Education Supply Data System (PESDS) Draft Process Manual; PESDS Draft Programs and Flow Charts; Program/Course Inventory; Cross-Code Index; Program Monitoring System: Matrix; Local Employer Training Programs Supply Feasibility Study; Training Packages; Delphi Study; Table A Supply/Demand Summary for 1975-1976 California State Plan For Vocational Education; Multi-Media Displays; and Promotional Materials. Also, a facsimile of each product's cover precedes its description and five exhibits (maps, tables, and diagrams) which emphasize the descriptive content are included. An addendum includes a five-page project calendar which summarizes the products and activities of meetings and workshops that were held. (EM)

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California Manpower Management Information System

County Superintendent of Schools Office

County Office Building

Ventura, CA 93001

FINAL REPORT

November 1, 1975 - December 31, 1976

Project No. 56 - 10561 - C - 6 - 010

Maintenance and Development of the California
Manpower Management Information System

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

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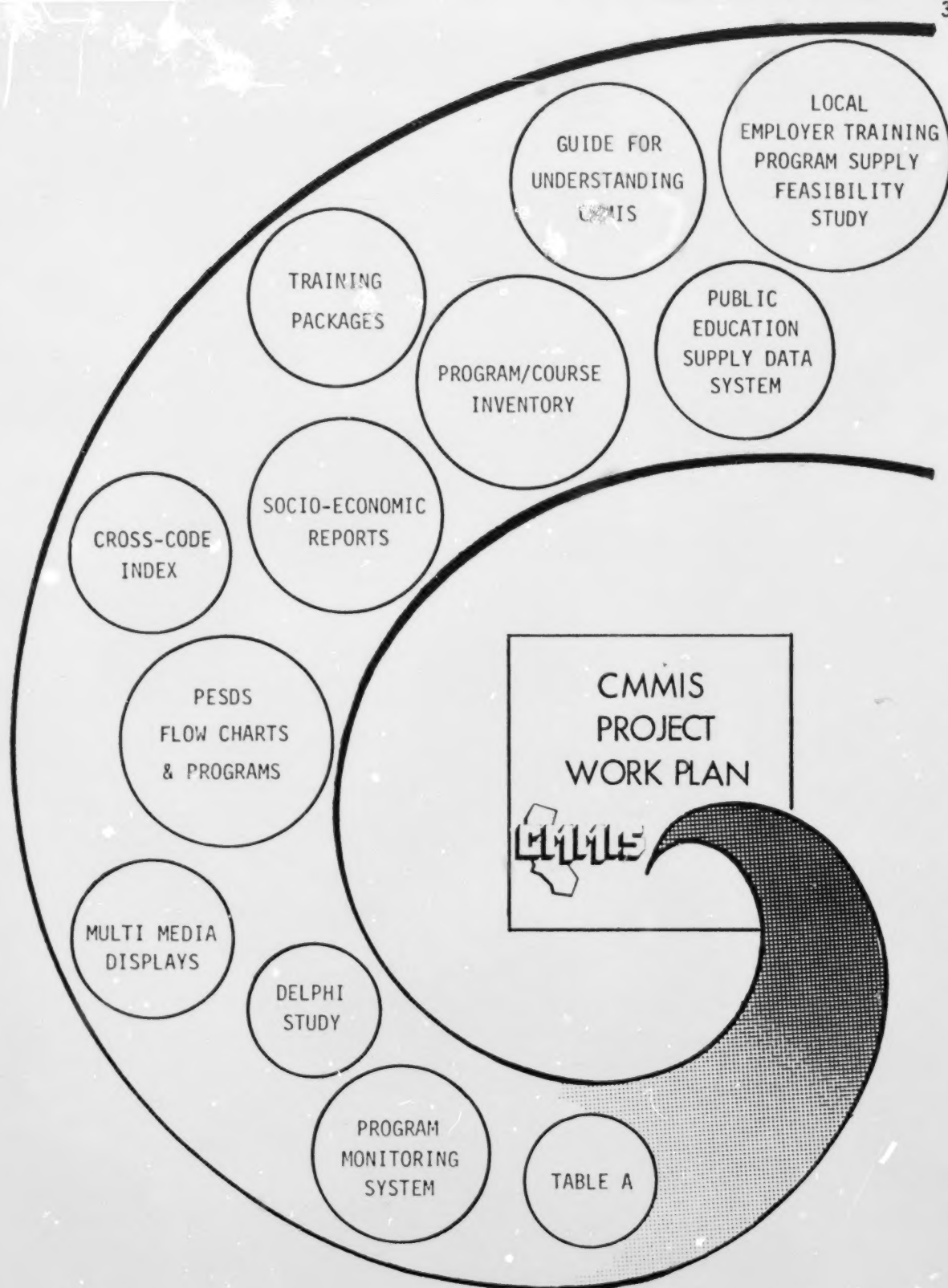
INTRODUCTION:

The long-term objective of the California Manpower Management Information System (CMMIS) Project is to provide a means of coordinating manpower supply and demand information with pertinent demographic information. This would enable state, regional, and local agencies to fulfill various legislative mandates and legal responsibilities, and specifically to: (a) provide a data base for management decision-making; (b) provide a method to uniformly compile and analyze useful data; (c) provide a data base for compiling legal compliance documents; (d) provide trend data on economic and social changes over five-year intervals; (e) provide a "warning" device for possible imbalances between vocational education program completions and manpower needs; and (f) provide for dissemination of data to various governmental and educational entities.

The results of the 1975-1976 CMMIS staff efforts include a number of products and services - focal points of the Project year - made available to state, regional and local practitioners. Exhibit 1 on page 3 introduces these products and services.

In order to make each project achievement apparent to all readers, particularly those who may not be knowledgeable of the details of CMMIS, this report has been organized into a format that can provide an easy to understand, concise, and accurate account of Project accomplishments. Each CMMIS product and activity completed during project year 1975-1976 and presented in this report is described in terms of its (a) content and purpose, (b) development, and (c) dissemination. In addition, several maps, tables, and diagrams have been created to emphasize the data in the texts. Copies of all published products are compiled in the Appendix. They are identifiable and relatable to their descriptions in this report by facsimiles of their covers, which precede each description. The CMMIS products and services for project year 1975-1976 are discussed in the following order.

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FOCAL POINTS

CMMIS 1975-1976

EXHIBIT 1

A Guide for Understanding the California Manpower Management Information System



CALIFORNIA MANPOWER MANAGEMENT INFORMATION SYSTEM
COUNTY OFFICE BUILDING,
VENTURA, CALIFORNIA 93001

GUIDE FOR UNDERSTANDING THE CALIFORNIA MANPOWER MANAGEMENT INFORMATION SYSTEM (CMMIS)

Description of Product:

The implementation of a state-wide manpower management information system includes soliciting widespread understanding and acceptance of the "systems" concept, and of its practical value in providing information to local and regional training program administrators. The GUIDE FOR UNDERSTANDING THE CALIFORNIA MANPOWER MANAGEMENT INFORMATION SYSTEM introduces and summarizes labor market dynamics in a pamphlet. The twenty page summary includes a concise topical outline, tables, diagrams, and illustrations.

Major emphasis is given in the GUIDE to the role of specific occupational training related to other potential manpower supply. Public vocational educators are also reminded of the legislative mandates that (1) require training programs to be planned according to current and projected manpower supply and demand information, and (2) specify that a manpower management information system should be used in the development of vocational training programs. The necessity and importance of interagency cooperation in creating CMMIS is also discussed.

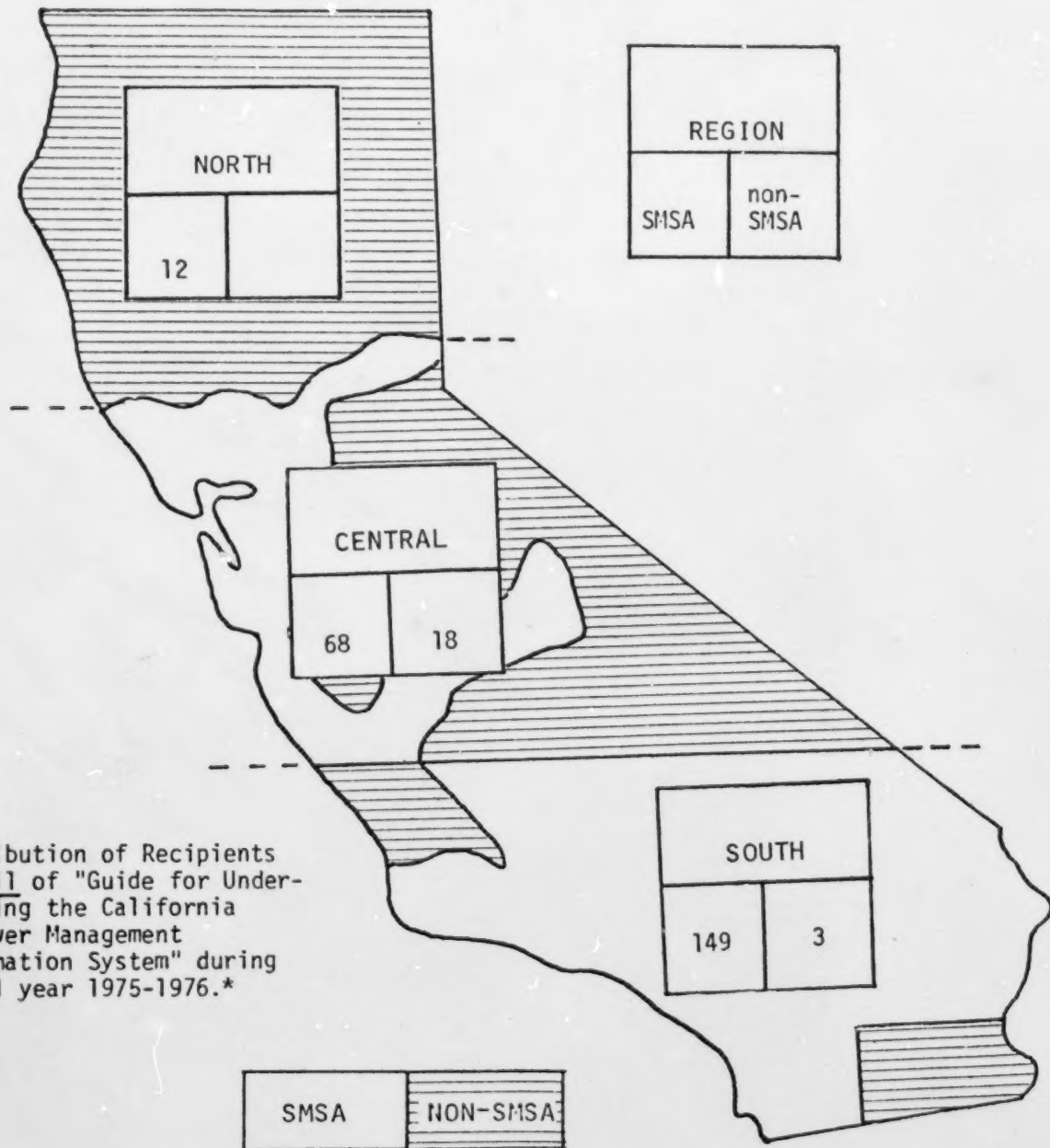
Developmental Outline:

Draft copies of the GUIDE were prepared for discussion purposes in June 1976, and a second draft in September 1976. The GUIDE first appeared in its present form and title in early October, 1976.

Dissemination Outline:

Fifteen hundred copies of the Guide were printed in late 1976. By the end of project year 1975-1976, almost one thousand copies had been distributed throughout the State, more than 200 by mail request and approximately 800 through CMMIS workshops. (Exhibit 2)

GUIDE DISTRIBUTION



*Fifteen hundred copies of the GUIDE were printed and the majority distributed via workshops.

EXHIBIT 2



CALIFORNIA MANPOWER MANAGEMENT INFORMATION SYSTEM

Socio-Economic Report

Standard Metropolitan Statistical Area

COOPERATING AGENCIES

CHANCELLOR'S OFFICE
CALIFORNIA COMMUNITY COLLEGES

CALIFORNIA STATE
DEPARTMENT OF EDUCATION

CALIFORNIA STATE EMPLOYMENT
DEVELOPMENT DEPARTMENT

LOCAL EDUCATION AGENCY-VENTURA COUNTY SUPERINTENDENT OF SCHOOLS OFFICE
COUNTY OFFICE BUILDING, VENTURA, CALIFORNIA 93001

SOCIO-ECONOMIC FACTORS REPORTS:
FRESNO AND SAN DIEGO

Description of Product:

The SOCIO-ECONOMIC FACTORS REPORTS have been defined as "community profiles." These profiles are composed of unique characteristics for each specific area, i.e., total population, ethnic and age compositions, and income groupings.

Community profiles are essential to the development and maintenance of an effective, total occupational education effort that will match properly prepared workers with the available employment in each study area, usually a Standard Metropolitan Statistical Area (SMSA). Community profiles may also be used to measure the acceptance and effectiveness of local vocational education programs over time, and to identify significant socio-economic trends as they apply to occupational demand and supply information.

Community profile data, or critical manpower indicators, can be compiled by geographic areas (e.g., secondary school or community college district boundaries, prime sponsor planning areas, adult and vocational education planning areas). Combining this information with the impact of technological trends, scientific discoveries, changing economic patterns, student occupational preferences and student follow-up provides a comprehensive overview for each SMSA.

Developmental Outline:

Appropriate SMSA's were selected according to these criteria:

(1) Employment Development Department cooperation; (2) availability of data; (3) geographic location. Data for the Fresno and San Diego SMSA's were acquired through Federal and State agencies and planning departments. Next, a format for the display of community profile data was designed, data processing analysis and programming were completed, and print-outs produced. The print-out reports were analysed and combined with charts, maps and a narrative statement to produce SOCIO-ECONOMIC FACTORS REPORTS for Fresno and San Diego SMSA's.

Dissemination Outline:

The SOCIO-ECONOMIC FACTORS REPORTS were disseminated through user workshops. The Fresno workshop was held on December 20, 1976. Highlights of the workshop included: 1) a discussion of the definition of terms; 2) an overview of each population characteristic described in the published tables; 3) an explanation of the methodology used to prepare the socio-economic report; 4) an illustration of an analysis technique useful for identifying potential "priority areas" from the report; 5) a question and answer period.



CALIFORNIA MANPOWER MANAGEMENT INFORMATION SYSTEM

PUBLIC EDUCATIONAL SUPPLY DATA SYSTEM

Process Manual

CMMIS FIRST DRAFT, JUNE 16, 1976

COOPERATING AGENCIES

CHANCELLOR'S OFFICE
CALIFORNIA COMMUNITY COLLEGES

CALIFORNIA STATE
DEPARTMENT OF EDUCATION

CALIFORNIA STATE EMPLOYMENT
DEVELOPMENT DEPARTMENT

LOCAL EDUCATION AGENCY-VENTURA COUNTY SUPERINTENDENT OF SCHOOLS OFFICE
COUNTY OFFICE BUILDING, VENTURA, CALIFORNIA 93001

THE PUBLIC EDUCATION SUPPLY DATA SYSTEM (PESDS) DRAFT PROCESS MANUAL

Description of Product:

In essence, the Public Education Supply Data System (PESDS) is the comprehensive collection and processing of training program enrollment and completion data. Computer technology is an integral part of the system. The draft PESDS PROCESS MANUAL explains in detail the data system, which has been designed to serve community colleges, adult schools, secondary schools, and regional occupational programs/centers. A companion report to the PROCESS MANUAL is the PROGRAMS AND FLOW CHARTS, a technical manual.

Objectives of the PESDS are to:

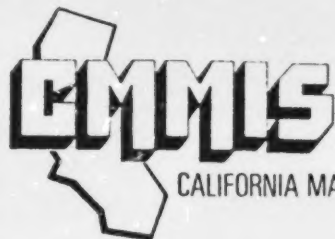
- 1) provide uniform definitions for collecting, reporting, and interpreting program/course data to assist in preparing the required VE/CCOE 30 and VE/CCOE 48, and VE/CCOE 45 reports;
- 2) provide a basis for determining non-duplicated primary and total program enrollment and completion data for specific programs;
- 3) provide an accurate supply data base which can be utilized for preparing supply/demand reports as well as program enrollment and completion projections;
- 4) serve as a major input for a vocational education program monitoring system.

Developmental Outline:

Important and available standard statistical data reporting forms were first identified within the statewide public education data reporting system. The VE/CCOE 30 and 48 statistical forms, as well as student record files, master course directory files, and program/course inventory files, were identified as essential to a viable information system. A method was developed to machine collect and process essential data, for program planning purposes. Statewide approval and acceptance of the method is now being developed.

Dissemination Outline:

The draft PROCESS MANUAL was prepared in June, 1976. Currently, the PESDS is operational in seven secondary school districts. Through a series of meetings with CMMIS staff and management team members, a decision was reached regarding an expansion of the PESDS. Invitations were extended to regional data processing centers and Huntington Beach Unified School District.



CALIFORNIA MANPOWER MANAGEMENT INFORMATION SYSTEM

PUBLIC EDUCATIONAL SUPPLY DATA SYSTEM

Programs and Flow Charts

CMMIS FIRST DRAFT, OCT., 1976

COOPERATING AGENCIES

CHANCELLOR'S OFFICE
CALIFORNIA COMMUNITY COLLEGES

CALIFORNIA STATE
DEPARTMENT OF EDUCATION

CALIFORNIA STATE EMPLOYMENT
DEVELOPMENT DEPARTMENT

LOCAL EDUCATION AGENCY - VENTURA COUNTY SUPERINTENDENT OF SCHOOLS OFFICE
COUNTY OFFICE BUILDING, VENTURA, CALIFORNIA 93001

PUBLIC EDUCATION SUPPLY DATA SYSTEM (PESDS)
DRAFT PROGRAMS AND FLOW CHARTS

Description of Product:

The draft Public Education Supply Data System (PESDS) PROGRAMS AND FLOW CHARTS, a technical publication, was prepared as a companion document to the draft PESDS PROCESS MANUAL. The PESDS reporting and verification system described in this technical publication consists of 12 programs and 12 sorts which permit the extraction, editing, accumulation, reporting, and verification of vocational education enrollment and completion statistical reports, utilizing students and master course files, and Form 1's, as input documents. The output report, along with various verification listings, permit a better understanding of a school or district's vocational education delivery system.

Developmental Outline:

The programs of the system are written in COBOL, utilizing a Honeywell Computer; any like configuration will necessitate no modifications. For other main frame computers, certain changes to the software will be needed. The flow charts, however, are accessible to all users. The hardware requirements for the system include a card reader/printer, 3-6 tape drives, one random-access device and 32-52K memory.

Dissemination Outline:

The PESDS PROGRAMS AND FLOW CHARTS publication was made available to the directors of the nine State Regional Data Centers during a workshop held in Fresno, November 4, 1976. It was also made available to one large unified school district. The computer hardware for the test districts are being maintained by the Ventura County Superintendent of Schools, Regional Data Processing Center.

PROGRAM/COURSE INVENTORY		PROGRAM INFORMATION	
A CDS _____ B USOE _____		C DELIVERER OF SERVICES ☐ A. SECONDARY SCHOOL ☐ B. COMMUNITY COLLEGE ☐ C. ADULT SCHOOL ☐ D. ROP/ROC ☐ E. PRIVATE ☐ F. CETA	
D CID _____ E DISTRICT _____		G PROGRAM/STUDENT GOALS ☐ A. AA/AS DEGREE ☐ B. INITIAL OCCUPATION ☐ C. SKILL UP-GRADING ☐ D. COLLEGE (B.A. IN SENIOR) ☐ E. COLLEGE GENERAL ED. ☐ F. CERTIFICATES ☐ G. HIGH SCHOOL DIPLOMA ☐ H. ELEMENTARY DIPLOMA ☐ I. LICENSE PREPARATION ☐ J. PERSONAL DEVELOPMENT ☐ K. CAREER EXPLORATION	
F SCHOOL COLLEGE _____			
H USE PROGRAM TITLE _____			
I VIN COMPLETION REQ'TS _____		J MEETS STATE PLAN ☐	
K CODE _____ L NEW ☐ CONTINUING ☐ #PROPOSED ☐			
M INSTRUCTOR CODE (OPT) _____		N FOR DATA PROCESSING USE ONLY (OPT) _____	

[illegible]

COLUMN LEGEND

- 1 LINE NO.
- 2 CCC-CALIF. COURSE CODES
- 3 CID-CLASSIFICATION OF INSTRUCTIONAL DISCIPLINES
- 4 DCN-DIST. COURSE NO.
- 5 MEETS STATE PLAN
- 6 IDENT & TITLE
- 7 OCCUPATIONAL OBJECTIVES
 - A. APPRENTICESHIP
 - B. ADVANCED OCCUPATIONAL
 - C. INTERMEDIATE OCCUPATIONAL
 - D. BEGINNING OCCUPATIONAL
 - E. NON OCCUPATIONAL

- 8. ADULT OBJECTIVES**
- A. BASIC EDUCATION
 - B. HIGH SCH. DIPLOMA
 - C. VOCATIONAL OCCUPATIONAL TRAINING
 - D. CONTINUING ED. PERSONAL COMPETENCY SKILLS
 - E. CONTINUING ED. VOCATIONAL
 - F. CONTINUING ED. OTHER
- 9. K. HANDICAPPED/ OLDER ADULTS**
- M. HANDICAPPED ADULTS
 - S. OLDER ADULTS
- 10. COMMUNITY COLLEGE COURSES**
- A. CREDIT GRADED
 - B. NONCREDIT/ NONGRADED
 - C. CREDIT/ OTHER
 - D. NONCREDIT/ OTHER

- 10 COMMUNITY COLLEGE COURSES
A. CREDIT GRADED
B. NONCREDIT /NONGRADED
C. CREDIT OTHER
D. NONCREDIT OTHER

- 11** HOURS
- 12** CREDITS, UNITS REQ.

- 13 UTILIZATION**
A. REQUIRED
B. REQUIRED OPTIONAL
C. RECOMMENDED

- 14** FREQUENCY
1. FALL
 2. SPRING
 3. FALL & SPRING
 4. SUMMER
 5. FALL & SUMMER
 6. SPRING & SUMMER
 7. FALL, SPRING & SUMMER
 8. FLEXIBLE
 - A. WINTER
 - B. FALL & WINTER
 - C. WINTER & SPRING
 - D. FALL, WINTER & SPRING
 - E. WINTER & SUMMER
 - F. FALL, WINTER, SUMMER
 - G. WINTER, SPRING & SUMMER
 - H. FALL, WINTER,
SPRING, SUMMER

- 15
- A. LECTURE SERIES
B. LECTURE SERIES
C. LECTURE SERIES
D. COOR. INTR. SYM.
E. INDEPENDENT STUD.
F. COMMUNITY CLASSES
H. COOPERATIVE VOC.
J. FORUM SERIES
K. LECTURE SERIES

1. AM
2. PM
3. AM/PM (ALL DAY)
4. EVENING
5. A/EVENING
6. PM/EVENING
7. A/PM/EVENING
8. FLEXIBLE

DATE _____
PG. _____ OF _____
REV. 1 1-1

PROGRAM/COURSE INVENTORY

Description of Product:

The PROGRAM/COURSE INVENTORY (PCI) form was designed to identify vocational education instructional programs in terms of the courses which comprise them and the occupations the programs serve. This form was previously identified as CMMIS Form 1B. The PCI was designed to serve as the input document for the CMMIS Public Education Supply Data System. When fully implemented, this system will provide continuous decision-making information on the availability of vocational education in California. The PCI can assist counselors by providing them with information pertaining to the in-school or college instructional programs and their related occupations. It also satisfies local RAVEC reporting requirements.

The information compiled on the PCI form is significant to the successful fulfillment of each of the following Vocational Education Functions as defined in the District Plan for Vocational Education:

- Program Instruction
- Program Review
- Program Evaluation
- Student Recruitment
- Guidance and Counseling
- Student Follow-Up

Developmental Outline:

The PCI was reviewed with representatives of the SDE RAVEC, SDE Vocational Education Section, SDE Adult Education, CCCO RAVEC, and CCCO Occupational Education Section. This review occurred through a series of meetings, some held with individual staff of the respective agencies, some in small groups of staff from the agencies, and some in subsequent small and large group meetings of the combined agency members. The result of this effort is the new Program/Course Inventory form, data element definitions, and comprehensive instructions for local districts to complete the form. With the exception of the Adult Education Section of the State Department of Education, all participating agencies endorsed the use of the PCI form.

Dissemination Outline:

The PCI prototype (CMMIS Form 1B) was disseminated as part of the PESDS during a workshop held in Fresno, November, 1976. Subsequently, an instruction manual was developed by project staff to assist local RAVE council areas in the completion of the PCI form. The PCI has been adopted by the State RAVE Council staff as the recommended reporting document for the 71 local RAVE councils. Currently the PCI is being completed by community colleges, adult schools, secondary schools, and ROP/ROC's throughout California.



CROSS CODE INDEX

CALIFORNIA MANPOWER MANAGEMENT INFORMATION SYSTEM

LOCAL EDUCATION AGENCY - VENTURA COUNTY SUPERINTENDENT OF SCHOOLS OFFICE
COUNTY OFFICE BUILDING, VENTURA, CALIFORNIA 93001

CROSS-CODE INDEX

Description of Product:

The four volume CROSS-CODE INDEX is a comprehensive source of occupational information cross-referencing United States Office of Education (USOE) Program Codes, Census Occupational groups, and Dictionary of Occupational Title (DOT) occupations. Volume 1 provides definitions, explanations, and describes numerous applications of the detailed tables contained in Volumes 2, 3, and 4 of the Index, benefiting a variety of users, including occupational program administrators and planners, occupational counselors, Regional Adult and Vocational Education (RAVEE) Councils, State and regional staff, and teachers and curriculum specialists. Volumes 2, 3, and 4, however, are detailed tables of basically the same information. The information in the INDEX, when used in tandem with other CMMIS products and resources, permits a comprehensive look at work, at education as it relates to work, and at the numbers of people currently employed and projected to be employed in different types of work.

Developmental Outline:

The development of the INDEX was a cooperative, interagency effort involving the CMMIS staff and the staff of the State Employment Development Department, Southern California Employment Data and Research Department. The INDEX required merging several tapes and files from the Department of Labor's Bureau of Labor Statistics and the California State Employment Development Department.

The INDEX was originally designed to correlate, facilitate, and report occupational demand and supply information and to assist planners and counselors to make better use of the EDD published Manpower Reports. The INDEX also developed into an instrument capable of providing information on job performance requirements and includes (in Volume I) methods for developing curriculum content, analyzing worker traits, etc.

Dissemination Outline:

One thousand copies of the four-volume set were printed. Copies of the INDEX were distributed during statewide workshops to vocational education

planners and administrators. The format for the INDEX workshops include participant hands-on activity. Four workshops were administered during November and December, 1976; approximately 120 people attended.

PRIORITY DECISION MAKING MATRIX: CRITICAL FACTORS

VALUES										(A) PROGRAM OPERATIONS										(B) COST EFFECTIVENESS						
USOE PROGRAMS	Cycles of Program Oper.	Length of Program Oper.	Enrollments	Non Completion Rate	Placements	Supply Demand	Handicapped	Disadvantaged	Limited English Spkng	Average Cost per Participant	Average Cost per Completion	Average Cost per Placement	Cost Effectiveness Ratio	Total Value Critical Index												
															C	P	C	P	C	P	C	P	C	P	C	P
1	2	3	4	5	6	7	8	9	10	11	12	13	14													

* Numbers are keyed to the definitions on the following pages

Form 7
1/76

PROGRAM MONITORING SYSTEM: MATRIX

Description of Product:

The CMMIS Monitoring System MATRIX has been designed to help the vocational education administrator measure the performance of specific ongoing vocational education training programs. Measuring program performance enables a particular program to be compared, objective by objective, (1) to itself at different points in time, and (2) to other programs with similar objectives.

Objectives of the CMMIS Monitoring System MATRIX include the implementation of a standardized, routine procedure for collecting, analyzing and displaying vocational education program performance data. The MATRIX includes fourteen critical program factors which, when analyzed, identify the program's effectiveness and/or weakness. This knowledge will enable the vocational education administrator to make appropriate adjustments in the operations of the program. These adjustments may include: (1) creating new programs, (2) modifying existing programs, and possibly (3) terminating unnecessary programs.

Developmental Outline:

The relevant and available literature of occupational training program evaluation was reviewed. Copies of selected standard California public vocational education data reporting forms (e.g., VE/CCOE 30, 48, and 45) and their instruction manuals were acquired. These were analyzed in order to locate and further define those information items which have also been specified in the literature as "critical" to vocational education information users. Identified critical factors were incorporated into one of two categories on a preliminary vocational education decision-making MATRIX format: (1) program operations factors, and (2) cost effectiveness factors.

The identified critical factors, together with their definitions and the preliminary MATRIX, were sent to 104 selected vocational education deans and directors throughout California during November, 1976. The purpose of

EXHIBIT 3



CALIFORNIA STANDARD METROPOLITAN STATISTICAL AREAS



MAILING ADDRESS OF VOCATIONAL EDUCATION
PROGRAM ADMINISTRATOR RESPONDING TO SURVEY

this survey was to (1) verify the importance of these critical factors and their definitions, (2) assign a ranking to the critical factors, and (3) refine the MATRIX format and concept.

Dissemination Outline:

The preliminary MATRIX was introduced to State and local staff and was discussed.

**EMPLOYER TRAINING
DATA COLLECTION
FEASIBILITY STUDY**

AUGUST, 1976



GLENN VAUGHAN

CENTER FOR EDUCATIONAL PLANNING
Office of the Santa Clara County Superintendent of Schools
100 Skyport Drive
San Jose, CA 95110

LOCAL EMPLOYER TRAINING PROGRAMS SUPPLY FEASIBILITY STUDY

Description of Product:

In cooperation with major employers in a specific study area (Santa Clara County), the feasibility of designing and testing a reporting procedure to periodically supply CMMIS with relevant data for local employer training programs was undertaken. The FEASIBILITY STUDY addressed:

- 1) the type of training programs for entry-level occupations; 2) the number and characteristics of employees enrolled in these training programs;
- 3) the length and level of training provided employees, and 4) the occupational goals of the trainees.

Development of Outline:

Sample frames were developed that would enable future researchers to obtain the local employer training program supply data with the least number of contacts. In-plant trainers were identified from the Equal Employment Opportunity Commission, Unemployment Insurance Administration data banks, and the American Society for Training and Development. In-plant trainers were surveyed, results analyzed, and recommendations made in a published report.

Dissemination Outline:

Preliminary copies of the FEASIBILITY STUDY were reviewed and returned to the sub-contractor for revision, with comments. Final copies of the STUDY were made available for limited distribution to cooperating agencies and individuals.



CALIFORNIA MANPOWER MANAGEMENT INFORMATION SYSTEM

CROSS CODE INDEX

Training Package

TRAINING PACKAGES

COOPERATING AGENCIES

CHANCELLOR'S OFFICE
CALIFORNIA COMMUNITY COLLEGES

CALIFORNIA STATE
DEPARTMENT OF EDUCATION

CALIFORNIA STATE EMPLOYMENT
DEVELOPMENT DEPARTMENT

LOCAL EDUCATION AGENCY-VENTURA COUNTY SUPERINTENDENT OF SCHOOLS OFFICE
COUNTY OFFICE BUILDING, VENTURA, CALIFORNIA 93001

TRAINING PACKAGES:
THE CROSS-CODE INDEX

Description of the Product:

The TRAINING PACKAGES for the CROSS-CODE INDEX include (1) a detailed lecture outline, (2) drawings that can be reproduced as overhead transparencies, and (3) a guide to reproduction procedures.

Developmental Outline:

After a series of local workshops that included discussions with local district deans and directors and the State Board staff, the content of the TRAINING PACKAGE was developed. The product was later revised through additional staff analyses and small group meetings. A finalized TRAINING PACKAGE was ready by December, 1976.

Dissemination Outline:

Dissemination of the TRAINING PACKAGE to selected audiences is anticipated during the next Project year.

TRAINING PACKAGES:

EDD/EDUCATION-INDUSTRY LIAISON OFFICE "CAREER ALERT" WORKSHOPS

Description of Product:

The dissemination section of the Project has assisted the Education-Industry Liaison Office (EILO) of the Employment Development Department (EDD) with presentations at "Career Alert" workshops. An overview of the CMMIS utilizing a twenty minute slide-tape show is presented in conjunction with labor market information. A hands-on exercise for extracting data from the Manpower Projections 1975-1980 is shared in small group sessions.

Developmental Outline:

The "Career Alert" workshops were developed by EILO in order to share labor market information with vocational educators. Participants attending these workshops gain an awareness of the labor market and its relationship to educational curriculum as well as an understanding of the processes and techniques of labor markets for planning, counseling and guidance, and curriculum change.

Dissemination Outline:

As of December 31, 1976 CMMIS had participated in five "Career Alert" workshops for secondary, community college, and EDD personnel. They were: Los Angeles County (150 participants), Los Angeles County (250 participants), San Bernardino/Riverside Counties (250 participants), Ventura/Santa Barbara/San Luis Obispo/Kern Counties (150 participants), and Sonoma/Marin/Lake Counties (100 participants). A GUIDE FOR UNDERSTANDING THE CALIFORNIA MANPOWER MANAGEMENT INFORMATION SYSTEM was distributed to all workshop participants. The Industry/Occupation Matrix Analysis Worksheet and its step-by-step procedure hand-out were disseminated to those workshop participants attending the small group sessions.

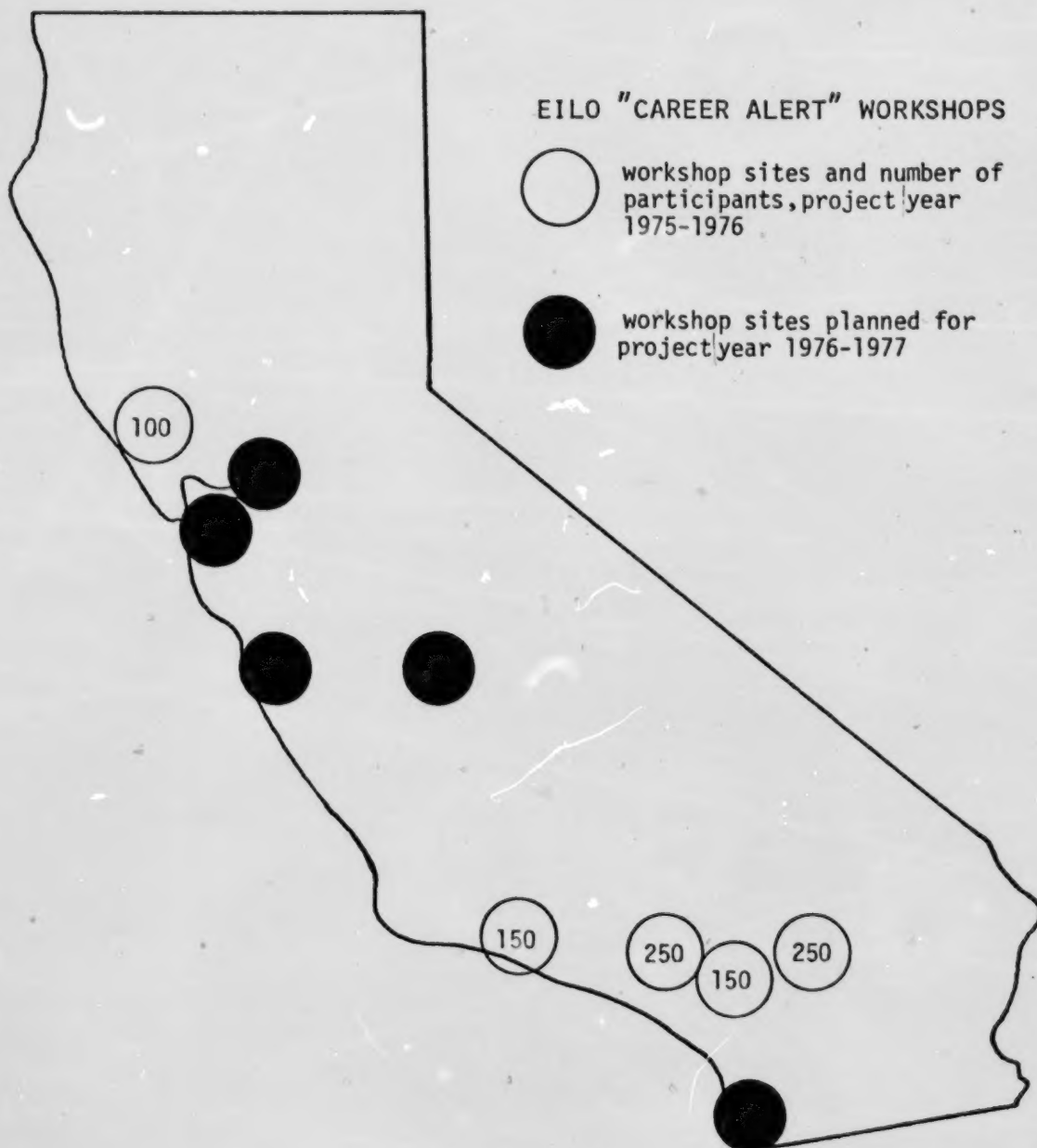
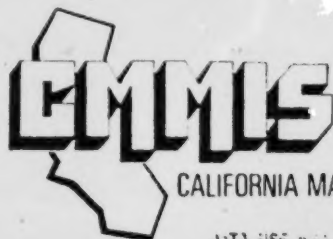


EXHIBIT 4



CALIFORNIA MANPOWER MANAGEMENT INFORMATION SYSTEM

DATA USE AND PRIORITY WORKSHEET

The CEMIS staff has a need to ascertain the perceived priorities for data to assist vocational education planners to do an effective job of providing needed occupational training. The attached instrument is designed to obtain the ratings of persons in responsible positions as to the probable importance of various types of data and services to be provided by CEMIS. This is a draft instrument. Your comments are solicited. Please write them in the margins, on the back of the page, or on another sheet to indicate your opinions.

Specifically the worksheet asks you to RATE THE IMPORTANCE AND RANK THE PRIORITY of fourteen items pertaining to proposed CEMIS activities. As you read over the worksheet, please note that each page is divided into two sections. The statements on the left side of the page, identified with a letter, defines the general area of concern of each page. The terms and subsequent definitions identified with a number, are those items to be rated as to their potential use and relative importance.

IMPORTANCE SCALE

To assist you in your completing this phase of the worksheet, the following definitions for potential use of the data are provided:

- | | |
|-------------------|--|
| <u>Planning</u> | All activities that are involved in the preparation of the local district plan for vocational education including considerations of new courses and programs, the development of justification statements for existing programs, and data collection from outside sources. |
| <u>Operation</u> | All activities involved in operating an on-going vocational education program including: administration and support, relationships with other agencies, placement, recruiting, instruction, etc. |
| <u>Evaluation</u> | All activities which assist in making judgment of worth. This includes the collection of information to make these judgments, e.g., following up students, staff members, and establishing program outcomes. |

COOPERATING AGENCIES

CHANCELLOR'S OFFICE
CALIFORNIA COMMUNITY COLLEGES

CALIFORNIA STATE
DEPARTMENT OF EDUCATION

CALIFORNIA STATE EMPLOYMENT
DEVELOPMENT DEPARTMENT

LOCAL EDUCATION AGENCY - VENTURA COUNTY SUPERINTENDENT OF SCHOOLS OFFICE
COUNTY OFFICE BUILDING, VENTURA, CALIFORNIA 93001

DELPHI STUDY
Data Use and Priority Worksheet

Description of Product:

The CMMIS staff designed and conducted a survey utilizing a modified Delphi Method. This DELPHI STUDY sampled vocational education information users and inquired about their relative need for identified CMMIS information components.

Developmental Outline:

Results of the initial survey were tabulated and analyzed, and the relative ranking of CMMIS information components by importance and priority were determined. The survey instrument was then revised and re-administered. The results of the second survey were summarized for future reference.

Dissemination Outline:

The initial survey was conducted with the Consortium of Users Advisory Committee on January 8, 1976. On February 27, 1976, the survey was administered to the Los Angeles County Deans and Directors. Consortium members were readministered the survey on March 16, 1976.

Table A

STATE OF CALIFORNIA
EMPLOYMENT OPPORTUNITIES RELATED TO VOCATIONAL EDUCATION PROGRAMS
LABOR DEMAND AND SUPPLY SUMMARY

OE Code	Instructional Program	Current Employment	Projected Expansion & Replacement Needs		Projected Labor Supply			
					Vocational Education Output		Other Sectors Output	
			1977	1981	1977	1981	1977	1981
17.21	INSTRUMENT MAINTENANCE AND REPAIR	14		741	SUPPLY DATA PROVIDED BY CALIFORNIA STATE DEPARTMENT OF VOCATIONAL EDUCATION			
17.22	MARITIME OCCUPATION	3,738		287				
17.23	METALWORKING	120,481	6,0%					
17.24	METALLURGY	2,067	472	472				
17.26	PERSONAL SERVICES	59,600	4,900	4,900				

TABLE A SUPPLY/DEMAND SUMMARY FOR 1975-1976 CALIFORNIA
STATE PLAN FOR VOCATIONAL EDUCATION

Description of Product:

TABLE A matches California's public vocational education program student completions (supply data), by USOE Program area, with estimated job opportunities (demand data) in occupations for which program participants have been trained.

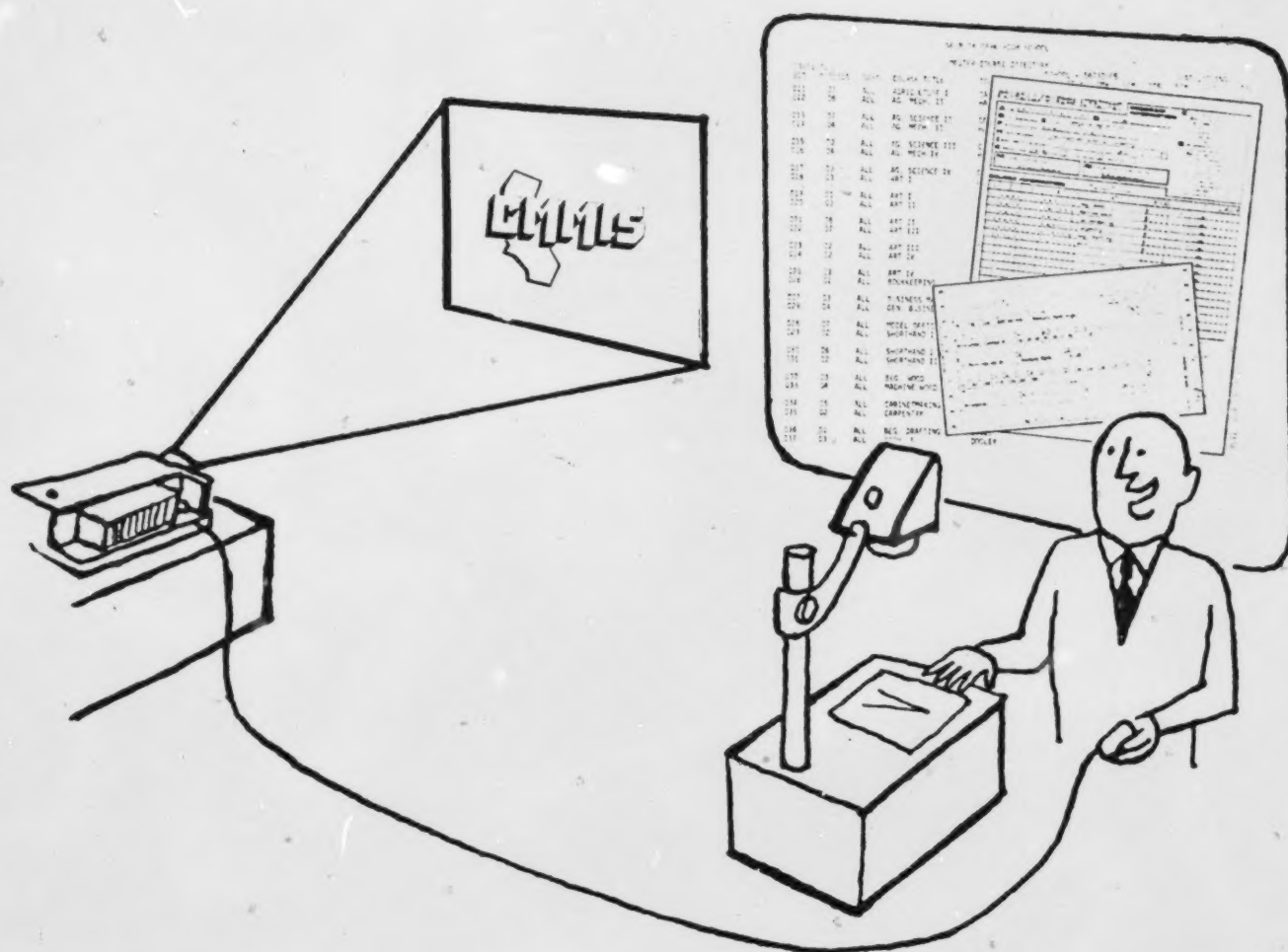
Developmental Outline:

Submission deadlines for the TABLE A preceded the completion date of the Employment Development Department's sophisticated Employment Weights by DOT Code Project. CMMIS, meanwhile, undertook the design and implementation of subjective analysis techniques and hand calculations for the compilation of that extremely complex job market data. Notwithstanding the many preparations preliminary to compiling the TABLE A, the project was time consuming and laborious. As a more desirable method for producing supply/demand reports of this kind and scale should soon be made available by the Employment Development Department, the accurate but complex and tedious methodology utilized by CMMIS staff to complete the TABLE A should be viewed as barely adequate and as serving, for the sake of necessity, an interim function.

Dissemination Outline:

The completed TABLE A was submitted to Sacramento for review, and for further dissemination and compliance purposes.

Multi-Media Displays



MULTI-MEDIA DISPLAYS: THE CMMIS SLIDE/TAPE
AND OVERHEAD TRANSPARENCIES

Description of Products:

The CMMIS SLIDE/TAPE is a 20 minute overview of the information system, its objectives, and possibilities, designed to generate interest and cooperation from vocational educators and a variety of other institutional agency representatives. The OVERHEAD TRANSPARENCIES are an attractive assortment of topical visual aids, and particularly useful during small group discussions of a technical nature where flexibility in the presentation of the system is desirable.

Developmental Outline:

The SLIDE/TAPE and OVERHEAD TRANSPARENCIES were revised and updated during Project Year 1975-1976 as a result of constructive audience response and technical improvements.

The CMMIS staff experimented with MULTI-MEDIA DISPLAYS during several preliminary dissemination activities and eventually standardized a set of 57 OVERHEAD TRANSPARENCIES relating to (1) the CROSS-CODE INDEX, (2) the VOCATIONAL EDUCATION PROGRAM MONITORING SYSTEM, (3) the PUBLIC EDUCATION SUPPLY DATA SYSTEM, and (4) the SOCIO-ECONOMIC REPORT.

Dissemination Outline:

The CMMIS SLIDE/TAPE PRESENTATION was an integral part of ten dissemination activities during Project Year 1975-1976, usually offered in conjunction with the dissemination of labor market information during statewide EILO workshops.

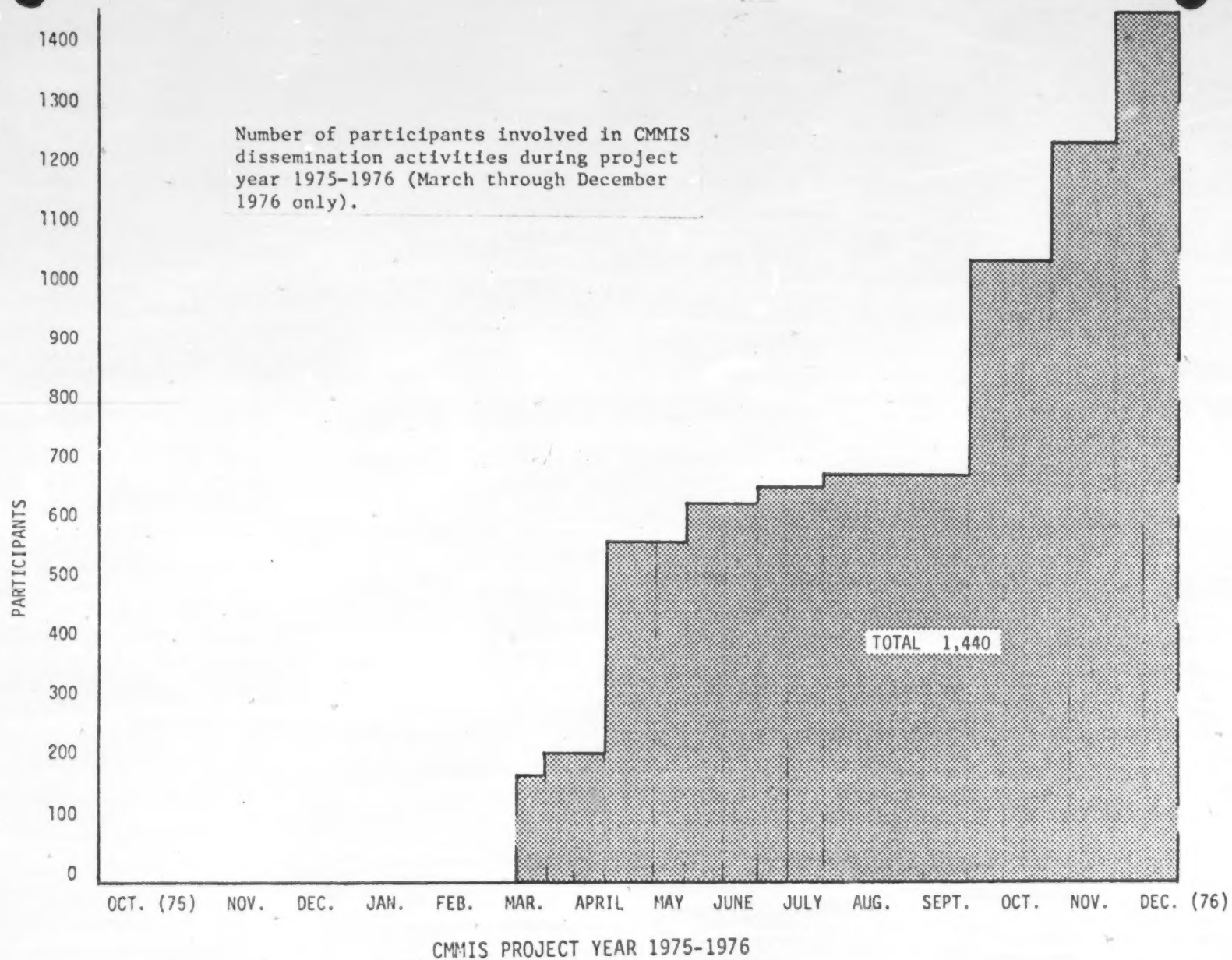


EXHIBIT 5


CMMIS
CALIFORNIA MANPOWER MANAGEMENT INFORMATION SYSTEM

PROMOTIONAL MATERIALS

Vocational education and manpower programs have as their purpose the preparation of people for work. The intention of the California Manpower Management Information System (CMMIS) is to focus on an approach to produce the information required by the local entity to make decisions for manpower and vocational education policies, planning, guidance and counseling activities.

Both federal and state legislators have recognized the need to develop comprehensive one-to five year plans. These plans are to be based on current and projected manpower demand and supply information. The recently enacted Assembly Bill 1821 (Montoya) further states (Ed. Code 6268.11) that a manpower management information system should be utilized in the development of such plans.

When fully developed and implemented, the California Manpower Management Information System will generate significant data, in standardized terminology, to assist in determining manpower and vocational education priorities and policies. The present status of training programs, industry/occupational projections, will be readily available to the vocational education administrator. The occupational counselor will find the resulting labor market demand/supply data useful for counseling students toward realistic and rewarding occupational selections and related training programs.

Other benefits expected to be derived from this System will be a process for translating manpower projections into potential training program needs, the identification of specific curriculum requirements, an accurate and concise statistical explanation of the total occupational education delivery system, and the availability of resource information vitally useful for occupational counseling.

In general, the System will provide a basis for standardized data collection, which will result in improved communications and decision making capabilities.

COOPERATING AGENCIES

CHANCELLOR'S OFFICE
CALIFORNIA COMMUNITY COLLEGES

CALIFORNIA STATE
DEPARTMENT OF EDUCATION

CALIFORNIA STATE EMPLOYMENT
DEVELOPMENT DEPARTMENT

LOCAL EDUCATION AGENCY - VENTURA COUNTY SUPERINTENDENT OF SCHOOLS OFFICE
COUNTY OFFICE BUILDING, VENTURA, CALIFORNIA 93001

PROMOTIONAL MATERIALS:
THE CMMIS "FLYER"

Description of Product:

In March of 1976 the dissemination section of the CMMIS project prepared a "FLYER" describing the California Manpower Management Information System. A schematic diagram detailing the three components of the System and an organization chart denoting the three cooperating agencies involved in the project were included.

Developmental Outline:

The FLYER was developed to briefly explain the purpose of the System to vocational education planners and administrators throughout the State. A form to request further information was included in the brochure. Persons receiving the FLYER were able to request (1) THE GUIDE FOR UNDERSTANDING THE CALIFORNIA MANPOWER MANAGEMENT INFORMATION SYSTEM, (2) more intensive training in the use of CMMIS products and services, and (3) that their names be included on the mailing list for other periodic CMMIS newsletters and reports.

Dissemination Outline:

Approximately 1,000 copies of the CMMIS FLYER were printed and disseminated by mail to vocational education planners and administrators utilizing the State Department of Education and the Community College Chancellor's Office mailing lists. Requests for further information were received from approximately 300 people receiving the FLYER during Project Year 1975-1976.

ADDENDUM

CMMIS STAFFING AND TITLES

ABBREVIATIONS AND ACRONYMS
USED IN THIS REPORTPROJECT CALENDAR:
MEETINGS AND WORKSHOPS

CMMS STAFFING AND TITLES, 11/75 - 12/75

JOHN VAN ZANT
PROJECT DIRECTOR

RESEARCH AND DEVELOPMENT

DENNIS BEAN
RESEARCH ANALYST

JIM COMPTON
RESEARCH ASSISTANT

JIM NEMETH
OCCUPATIONAL RESEARCHER
(PROVIDED BY COUNTY OF
VENTURA)

PAT LAU/EDDIE CULP
RESEARCH ASSISTANT

TED COLLINS/MIKE TALLMAN
SYSTEMS ANALYST

JENIFER BUDROW
ADMINISTRATIVE ASSISTANT

CHERYL NICHOLL
SENIOR CLERK-TYPIST

DISSEMINATION AND IMPLEMENTATION

DR. JACK BOND
DISSEMINATION DIRECTOR

MICKIE POTTER
DISSEMINATION SPECIALIST

WALTER METCALF
MEDIA SPECIALIST

CRAIG POZZI
MEDIA SPECIALIST

FLORENCE HEDGES/SUE BARRETT
CLERK-TYPIST

(DOTTED LINE INDICATES PART-TIME STAFF POSITION AND/OR PARTICIPANT
DURING PROJECT/YEAR)

ABBREVIATIONS AND ACRONYMS

USED IN THIS REPORT

AB	Assembly Bill
AVA	American Vocation Association
CACVE	California Advisory Council on Vocational Education and Technical Training
CAWEE	California Association of Work Experience Educators
CCCO	California Community Colleges Office
CCCCO	California Community Colleges Chancellor's Office
CDVE	California Directors of Vocational Education
CMMIS	California Manpower Management Information System
DOT	Dictionary of Occupational Titles
EDD	Employment Development Department
EILO	Education-Industry Liaison Office
HE - OE	Home Economics - Occupational Education
ID	Identification
I/E	Industry/Education
I-O	Industry-Occupation
IOM	Industry-Occupational Matrix
MIS	Manpower Information System
PCI	Program/Course Inventory
PESDS	Public Education Supply Data System
RAVEC	Regional-Adult and Vocational Education Center
ROP/ROC	Regional Occupational Program/Regional Occupational Center
SAM	Student Accountability Model
SCOG	Southern California Operations Group

ABBREVIATIONS AND ACRONYMS (cont'd)

SDE	State Department of Education
SEARCH	Systems for Exploring Alternative Resources and Commitments in Higher Education
SMSA	Standard Metropolitan Statistical Area
USOE	United States Office of Education
VEA	Vocational Education Act
VE/CCOE	Vocational Education/Community College Occupational Education
VEO	Vocational Education Occupations

PROJECT CALENDAR: MEETINGS AND WORKSHOPS

<u>DATE</u>	<u>PLACE</u>	<u>TYPE OF ACTIVITY</u>	<u>PRODUCTS/ACTIVITIES</u>	<u>NUMBER ATTENDING</u>
10/21/75	Beaumont	EDD/EILO Workshop (in-service for EDD staff)	I-O Matrix Manpower Projection Training	30
10/22	San Diego	CDVE/ROP and C Conference	CMMIS Orientation Overhead Transpar- encies	35
10/28	Monterey	EDD/EILO Workshop	I-O Matrix Manpower Projection Training	30
11/5-7	Chicago, Ill.	National Confer- ence of Management Information Sys- tem Directors	Participated in review of the USOE funded Management Information System	125
11/17-18	Washington, D.C.	USOE Advisory Committee of VEO Revisions	Handbook IV Voc. Ed. Code Expansion	28
11/25	Los Angeles	VEA Claim Form Study, Roland Boldt/Jack Totheroh	Preliminary discus- sions of merging fiscal data with other Program Data	8
12/3-4	Anaheim	AVA Pre-Session for National Conference of State Vocational Education Plan- ners	CMMIS Slide/Tape show about I-O Matrix	36
12/5	San Francisco	SAM, TRACE, and Orientation Meeting with SAM Consortium, Dr. Morris	PESDS	25
12/7-8	Anaheim	AVA Convention Mr. Sartin - CMMIS Conference	Review of CACVE MIS Report	2
		Mr. Holmes - Oregon System	Orientation to SEARCH	4

<u>DATE</u>	<u>PLACE</u>	<u>TYPE OF ACTIVITY</u>	<u>PRODUCTS/ACTIVITIES</u>	<u>NUMBER ATTENDING</u>
		CMMIS Presentation AVA Guidance Section	CMMIS Form 1-B	27
12/17/75	Ventura	State Department, California Course Code Status Re- view, Dr. Robert Howe	Review of Decisions and Findings Per- taining to CMMIS	6
12/22	Ventura	CMMIS Status Re- view with Dr. Robert Branch, Sacramento(former SCOG member)	PESDS	3
12/31	Ventura	Review of CMMIS and the Oregon Information Sys- tem. Mr. Allan Schultz, Oregon State Board		3
1/8	San Francisco	Consortium of Users Meeting Located/Made Arrangements for Meeting Sent Meeting Notes Prepared Agenda Prepared Mate- rials (Prev. List- ed) Prepared and Presented CMMIS Orientation	Status Report Delphi Study Draft of the Guide for Understanding CMMIS	30
1/8	San Francisco	Exploratory Meet- ing with Industry/ Education Council - Dr. Hank Weise	In-Plant Training Studies CMMIS Orientation	33
1/15	Monterey	CMMIS Consultation Meeting - Warren Reed - Al Holmes and Tom Adamson	Agreement for Occupa- assigned to USOE Codes	4
1/20	Sacramento	State I/O Matrix Meeting - Holmes, Flemming and Com- puter Staff	Agreement by EDD to share I-O Matrix Computer Tapes	15

<u>DATE</u>	<u>PLACE</u>	<u>TYPE OF ACTIVITY</u>	<u>PRODUCTS/ACTIVITIES</u>	<u>NUMBER ATTENDING</u>
1/21/76	Sacramento	State I/O Matrix Meeting Holmes, Fleming, and Computer Staff	Agreement by EDD to share I/O Matrix Computer Tapes	15
1/21	Oakland	Oregon Material Project SEARCH		5
1/23	Monterey	CMMIS Consultation Meeting Kay Welsh, Al Holmes, Tom Adamson	Agreement on occupations assigned to HE - OE codes	5
2/3	San Diego	AB 1821 Hearing	CMMIS recommendations on implementation guidelines	125
2/9		AB 1821 Hearing CMMIS Staff Recommendations		
2/11	Los Angeles	Critical Manpower Indicators from Census Orientation- Art Smith and Pat Lau.	Community Profile Report	12
2/17	Camarillo	New Staff Orientation Dr. Jack Bond - John Van Zant		2
2/25	Downey	CMMIS Orientation Presentation L.A. County Deans and Directors	Orientation and Priority ID	65
3/15	San Francisco	I/E C Program Committee CMMIS Orientation Presentation	Support for In-Plant Training Study	30
3/16	Los Angeles	CMMIS Consortium of Users Meeting	2nd Round Delphi Study Priority Setting	30
3/25	Riverside	Project Improve CMMIS Orientation	Orientation	31
3/26	San Diego	I/E Sub-Committee for CMMIS Development Activities A/3.0, B/3.0, and C/2.1	San Diego Profile Planning In-Plant Training Survey Planning	5 8

<u>DATE</u>	<u>PLACE</u>	<u>TYPE OF ACTIVITY</u>	<u>PRODUCTS/ACTIVITIES</u>	<u>NUMBER ATTENDING</u>
3/30/76	Los Angeles City	EILO Career Alert	IOM CMMIS Overview Slide Tape	150
4/20	Sacramento	CDVE Conference (Dick Dempsey, DOL, ED&R, L.A., S.F., Sacto)	Presentation: "Manpower Trends"	60
5/6	Palo Alto	CAWEE State Conference	CMMIS Overview Slide Tape IOM (State)	50
5/21	Ventura-CMMIS	Orientation for SDE Staff	Overview of CMMIS Applications Slide Tape	5
5/25	Los Angeles	Industry-Educ. Alliance	CMMIS Overview Slide Tape	20
5/26	Torrance	EILO-Career Alert Los Angeles County	CMMIS Overview Slide Tape IOM Application	250
5/27	Los Angeles	Cross-Code Reference Tables	Cross-Code Index Initial Presentation	45
6/8	San Diego	Deans/Directors R.O.P./C. Present.	Cross-Code Index	40
6/9	Sacramento	CMMIS Management Team	Staff Report	7
6/18	Sacramento	Mtg. for Consortium of Users	"Guide" (draft) Community Profile Cross-Code Index PESDS	22
7/22	Lake Tahoe	Roland Boldt and State Staff.	PESDS and VE 48 Process	15
7/28	Los Angeles	State Regional Staff L.A. - Oakland-Sacto.	Extrapolating Data from Cross-Code Index	10
9/14	Ventura	Review of Community Profile with EDD	Socio-Economic Reports (tables)	3
9/17	Sacramento	3-Agency/EDD/ CMMIS - Planning Mtg. CC/DE		15
10/5	Costa Mesa	CDVE State Conference	CMMIS Overview Slide Tape	40

<u>DATE</u>	<u>PLACE</u>	<u>TYPE OF ACTIVITY</u>	<u>PRODUCTS/ACTIVITIES</u>	<u>NUMBER ATTENDING</u>
10/7	Los Angeles	EDD State Advisory Committee	CMMIS Overview Slide Tape	25
10/18	Los Angeles	SDE Southern Region Mtg. with Dale Rossi	Cross-Code Index	30
10/19	Sacramento	RAVE CCCCO Staff	PESDS PESDS	15 18
10/20	Fresno	Socio-Economic Presentation	Socio-Economic Report Fresno SMSA	20
10/25	Sacramento	Ann Upton Staff Presentation	Cross-Code Index	10
10/28	San Bernardino	EILO-Career Alert San Bern/Riverside	CMMIS Overview Slide Tape IOM Application	250
11/4	Fresno			
11/17	Ventura	EILO-Career Alert Ventura-S.B. - Kern County	CMMIS Overview Slide Tape IOM Application	150
11/30 - 12/3	Houston, Texas	Ohio State Univ. Pre-AVA Confer.	Cross-Code Index	25
12/5	Houston, Texas	NCLA-AVA Breakfast	CMMIS Slide Tape	50
12/9	Santa Rosa	EILO-Career Alert Sonoma, Lake, Mendecino, etc.	CMMIS Overview Slide Tape IOM Application	100
12/16	San Diego	CMMIS Presentation	Cross-Code Index/ IOM Interpretation	50
12/20	Oakland	Coastal Region Presentation	Cross-Code Index	30